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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A bidirectional forage bale dryer comprising a frame, a bale support platform with orifices to permit the passage of air, a lower plenum chamber, an upper plenum chamber, an access opening for access to said platform, a surrounding wall means to substantially seal said forage bales disposed in a stack on said platform and surrounding a circumferential side surface of said stack in close contact to confine a heated drying air flow connected between said plenum chambers and through said stack, an air flow conduit in communication with respective ones of said lower and upper plenum chambers, each air flow conduit having a first branch conduit in communication with a heat generating device at an air intake inlet, and a second branch conduit in communication with an air suction device adjacent to an air outlet, a valve means-element in each said branch conduit, and means to close or open said valve ~~means-elements~~ whereby to direct said drying air flow upwards or downwards through said stack of forage bales to create a negative pressure through said forage bales disposed on said platform between said upper and lower plenum chambers.

2. (currently amended) A bidirectional forage bale dryer as claimed in claim 1, wherein said surrounding wall ~~means~~-is constituted by a sheet of flexible material capable of adhering to said side surface of said forage bale stack by negative pressure, thereby substantially sealing voids about said side surface of said bales in said stack.

3. (original) A bidirectional forage bale dryer as claimed in claim 2, wherein said sheet of flexible material is a polyethylene sheet capable of resisting to tearing when displaced against said stack by said negative pressure.

4. (original) A bidirectional forage bale dryer as claimed in claim 1, wherein said air intake inlet comprises a fresh air intake conduit and air recirculating conduit, said air recirculating conduit being connected between said air outlet and said air suction device, an exhaust chamber adjacent said air outlet, said exhaust chamber having an air

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exhaust port and an air recirculating port which is connected to said heat generating device, and control gates to vary the opening of said exhaust port and said recirculating port whereby to control the amount of air to be recirculated through said heat generating device within the range of from 0% to 100%.

5. (original) A bidirectional forage bale dryer as claimed in claim 1, wherein a negative pressure is in the range of about 3.2 kPa (0.46 psi), said frame being a rigid steel frame and said plenum chambers having a rigid wall structure capable of supporting exerted pressure.

6. (original) A bidirectional forage bale dryer as claimed in claim 1, wherein said forage bales have variable dimensions and are placed side by side to cover the full area of the said bale support platform on at least one layer.

7. (original) A bidirectional forage bale dryer as claimed in claim 6, wherein bales may be disposed on two or more layers, one on top of another.

8. (currently amended) A bidirectional forage bale dryer as claimed in claim 1, wherein there is further provided humidity and temperature sensing devices connected to said first and second branch conduits and to said control means to monitor the temperature and humidity of air flowing in said conduit, said control means having an algorithm to monitor signals from said sensing devices and to operate said heat generating device and air suction device, and current sensing means connected to a motor of said air suction device and said control means to monitor power consumption and air flow rate.

9. (currently amended) A bidirectional forage bale dryer as claimed in claim 8, wherein said heat generating device is designed to ~~rise~~raise air temperature to at least 60°C, considering the actual airflow requirement which depends on the bale platform area, the bale stack height and the ambient air temperature, heat generating device and air suction device.

10. (original) A bidirectional forage bale dryer as claimed in claim 4, wherein said control gates are constituted by a plurality of pivotal louvers secured across said exhaust port and recirculating port, and secured to motorized or hand controlled

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mechanical couplings to tilt said louvers to any position between a fully open to a fully closed position to control the air flow through said ports.

11. (original) A bidirectional forage bale dryer as claimed in claim 1, wherein said lower plenum chamber is located under said support platform, said upper plenum chamber being supported by said frame at a predetermined distance above said support platform.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (cancelled)